

# **SYSTEMIC RISK AND ENTERPRISE RISK MANAGEMENT**

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**ERM Institute Research Workshop**

**August 18, 2009**

*Stability through change demands clarity about who you are and what you are trying to do.*

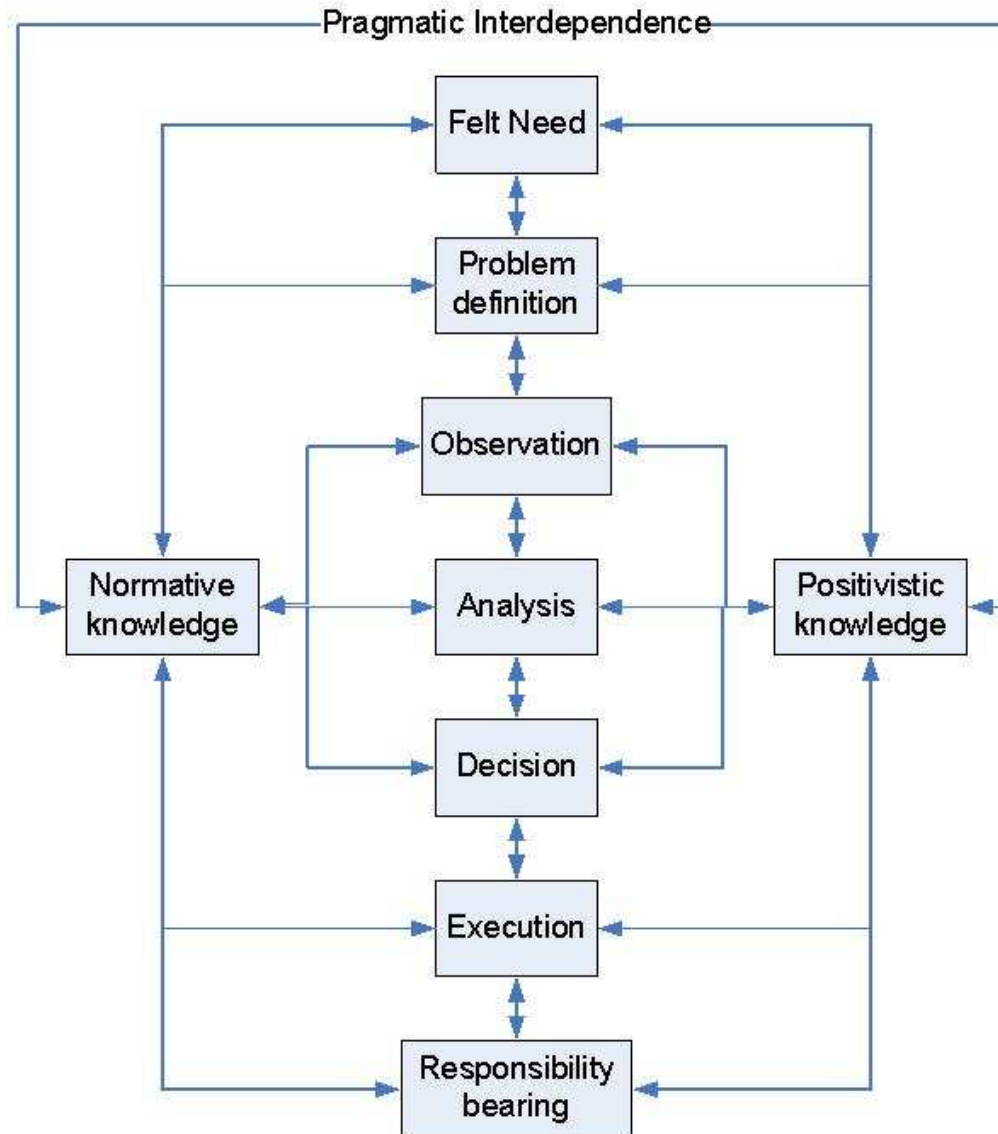
William Bridges. *Managing Transitions: Making the Most of Change*. Cambridge: Da Capo Press, 2003.



**HOW EFFICIENTLY DOES  
YOUR ORGANIZATION LEARN?**



# STEPS IN PROBLEM SOLVING AND THE KNOWLEDGE USED



Sources: 1. Glenn L. Johnson. 1986. *Research Methodology for Economists*. MacMillian Publishing Company. New York. P. 15

2. John Dewey. 1997. *How We Think*. Dover Publications Inc. Mineola, NY. P. 72.

# FELT NEEDS

- Losses across numerous world markets suggest systemic crisis.
- Continuing economic under-performance characterized by excessive debt, housing inventory buildup, and unemployment.
- Unreflective policy innovation with deadlock on substantive issues like healthcare, immigration reform, energy, war & peace, education, and pension reform.
- Problems have demographic roots as baby-boomers approach retirement.

# PROBLEM STATEMENT

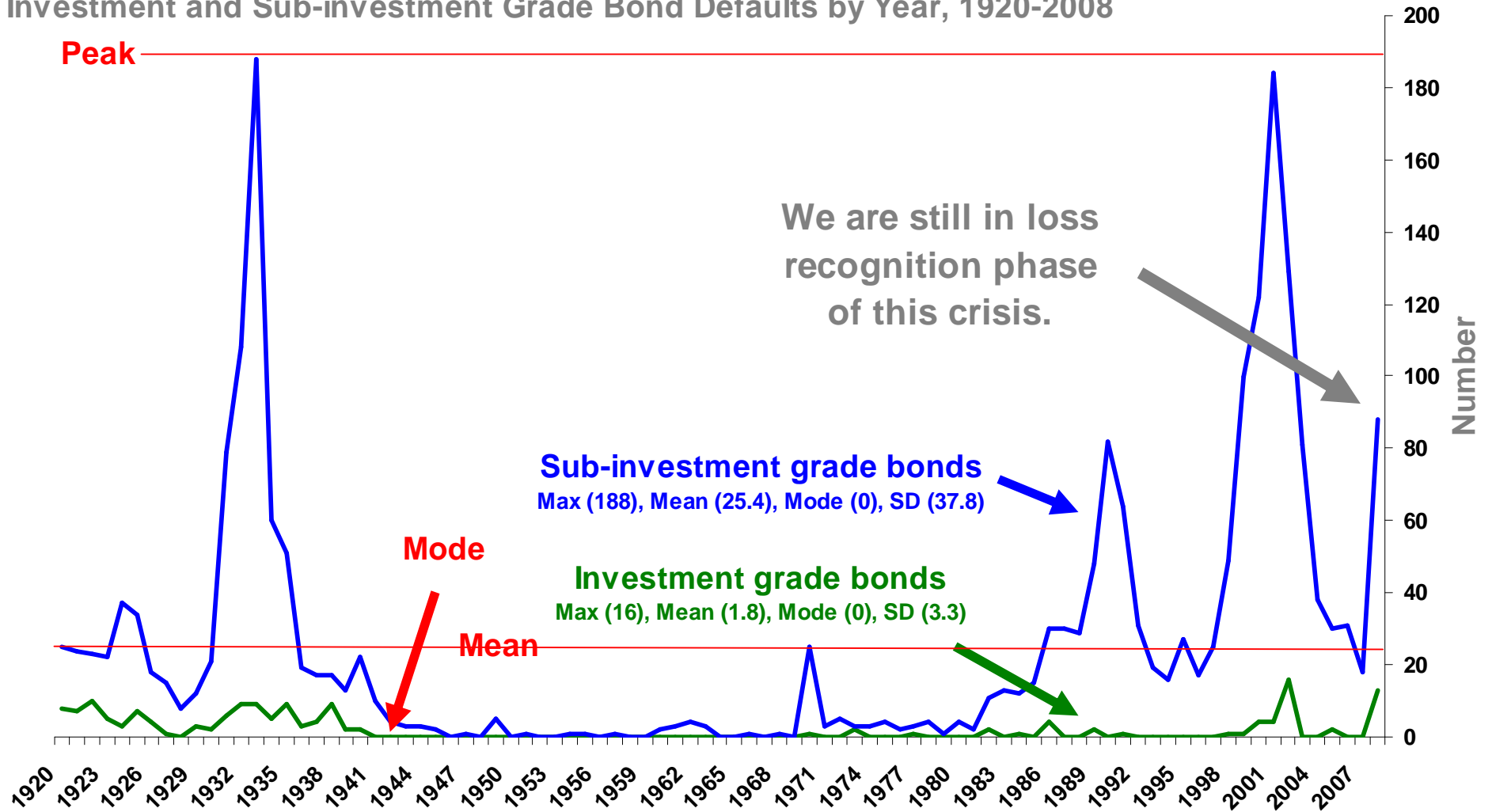
- World economy transitioning from closed national economies to open international economy.
  - *Theme: Law-of-one-price dynamics.*
- World leadership is transitioning from *Cold-War dualism* to *Group of 8 (G8)* to *Group of 30 (G30)*.
  - Theme: More people means more complex decisions.
- Financial crisis is a reflection, not the source of problems.
  - Theme: Philosophic transition from modern to post-modern era accompanies generational handoff.
- Change is evolving and dynamic.
  - Theme: Learning to learn efficiently.

# OBSERVATION AND ANALYSIS

- Risk management has become change management.
  - Qualitative processes are more important now than quantitative modeling.
  - Dynamic models are harder to develop and maintain than static-equilibrium models.
- Problem of the peak load (next slide).
- Systemic risk is no longer a 30-year flood problem (next slide).

# Chart: Annual Corporate Bond Issuer Default Counts

Investment and Sub-investment Grade Bond Defaults by Year, 1920-2008



Source: Moody's Investor Services, Default and Recovery Rates of Corporate Bond Issuers. 1920-2008. February 2009. Exhibit 22.

# BOND DEFAULT COMMENTS

- Investment and sub-investment grade loss distributions differ fundamentally.
  - Still, spillover (contagion) exists.
  - Poor risk analysis, fraud, and dynamic factors can lead to jump from investment to sub-investment grade.
- Mean is poorly matched with mode of loss distributions.
  - Losses in peak are clearly a large portion of total losses.
  - Mean/maximum ratio is roughly 1:8.
  - Distributional analysis may not be as helpful as seeing the loss distributions as having two-states.
- Systemic losses are no longer rare.
  - 100-year floods should not occur every 10 years.
  - What is the “system” in systemic risk?

# “SYSTEM” IN SYSTEMIC RISK I

Assumption that markets are legally separate and independent is obsolete.

- Barriers of entry in banking and insurance markets were eliminated in the 1990s.
- Regulation assumes distinct charters for thrifts, state, and national banks which are no longer distinct.
- Capital policy is still done on charter basis which leads to policy struggles.

# “SYSTEM” IN SYSTEMIC RISK II

Large firms can influence legislators, regulators, and professional groups internationally to pursue their interests.

- Optimization of firm interests had converted stable markets into dynamically changing markets.
- Market information is costly and individual investors cannot assume transparency.
- Financial statements are inadequate to monitor firm risk taking.

# “SYSTEM” IN SYSTEMIC RISK III

Competition in the political and economic realms has been undermined.

- We have returned to a political economy similar to the days of Adam Smith where the distinction between the state and corporations has blurred.
- Outsourcing of governmental functions can be innocent (food service/IT/HR) or troubling (military/policing/decision support) depending on the mix.
- Many assumptions of the Enlightenment (competitive markets, personal discipline and integrity, education as an ideal, political participation as civic duty, belief in objectivity) assumed by Adam Smith have been violated.

# RECOMMENDATIONS I

In a dynamic situation, efficient learning is the key to survival.

- In the evolving environment, leadership needs to articulate a fresh vision and identify what is new that we need to learn about.
- Study history to find patterns and review previous studies.
- Develop new information and data systems that track losses.
- Promote team approaches to aid organizational learning and give people bridges from the old to the new environment.

# RECOMMENDATIONS II

## Risk management suggestions:

- Leaders should both learn (especially from losses) and lead striving to develop consensus around decisions and esprit de corps.
- A well-thought out risk appetite is especially important right now.
- Caveat decisions with sunset clauses as they are crafted—when is this decision obsolete? (Risk management caveat)
- Build new information and incentive systems, such as risk based pricing, around new activities.
- Actively work to improve organizational decision culture and pick projects to learn (real hedge).

# APPENDICES

# CORPORATE CULTURE TYPES

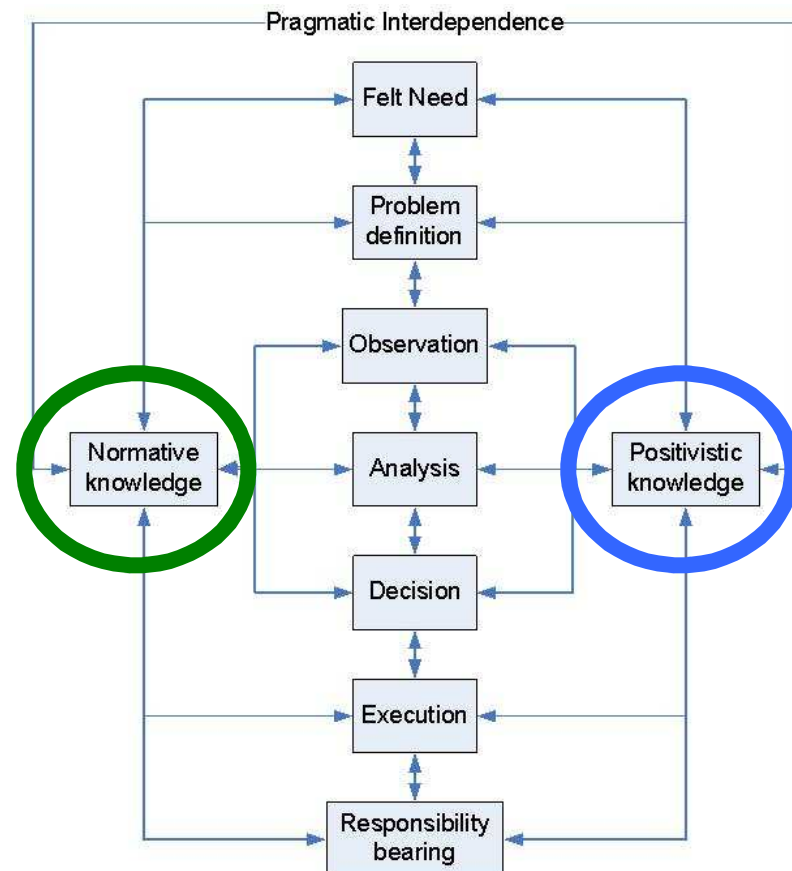
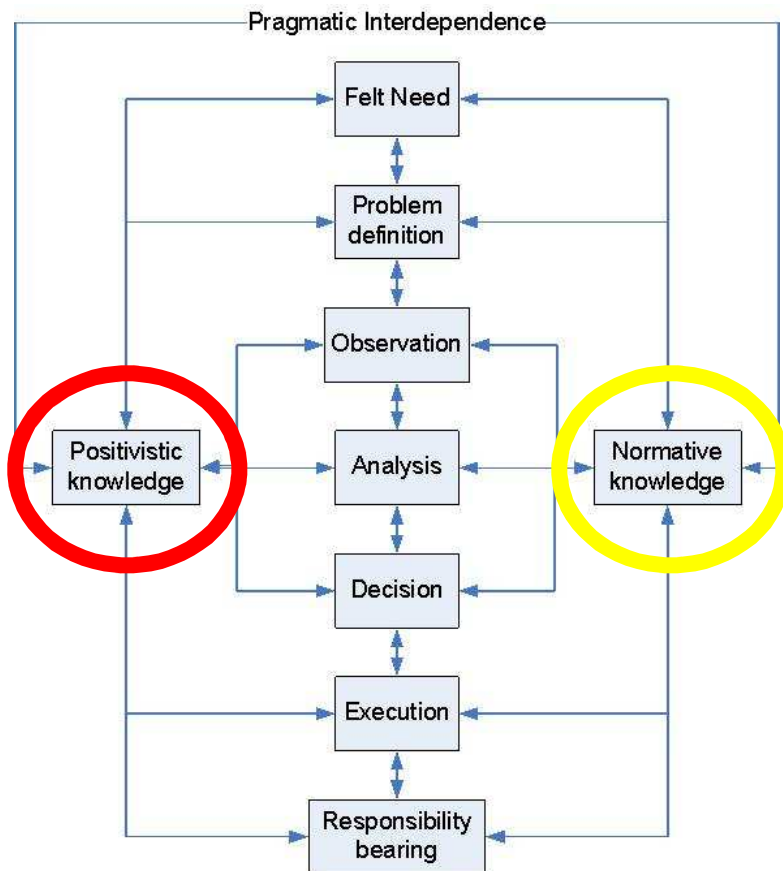
Culture	Decisions	Key value	Primary training	Control processes	Transaction/ Opportunity Cost Mix
Modern	Line managers	Objectivity	Formal	Formal quality control	M/L
Post modern	Consensus	Equity	Formal and on-the-job	Informal	H/M
Traditional	Senior managers	Loyalty	On-the-job	Discretion of senior manager	L/H
Dying	Any of the above under pressure.				

Transaction cost = Overhead costs of doing business.

Opportunity cost = Costs of foregone opportunities.

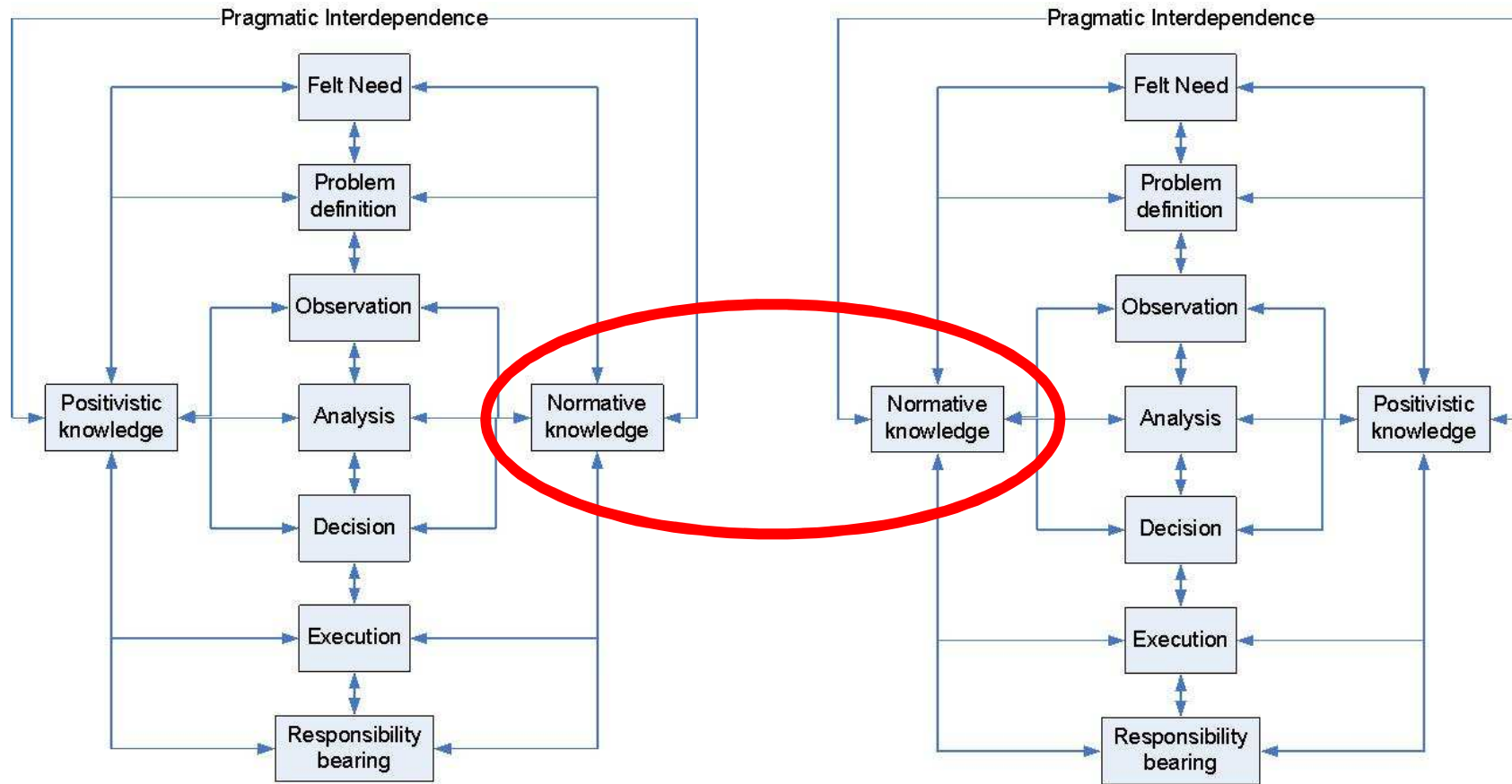
L = low, M = medium, H = high

# POSTMODERNISM: MULTIPLE DECISION MAKERS, INFORMATION SOURCES, AND VALUES.



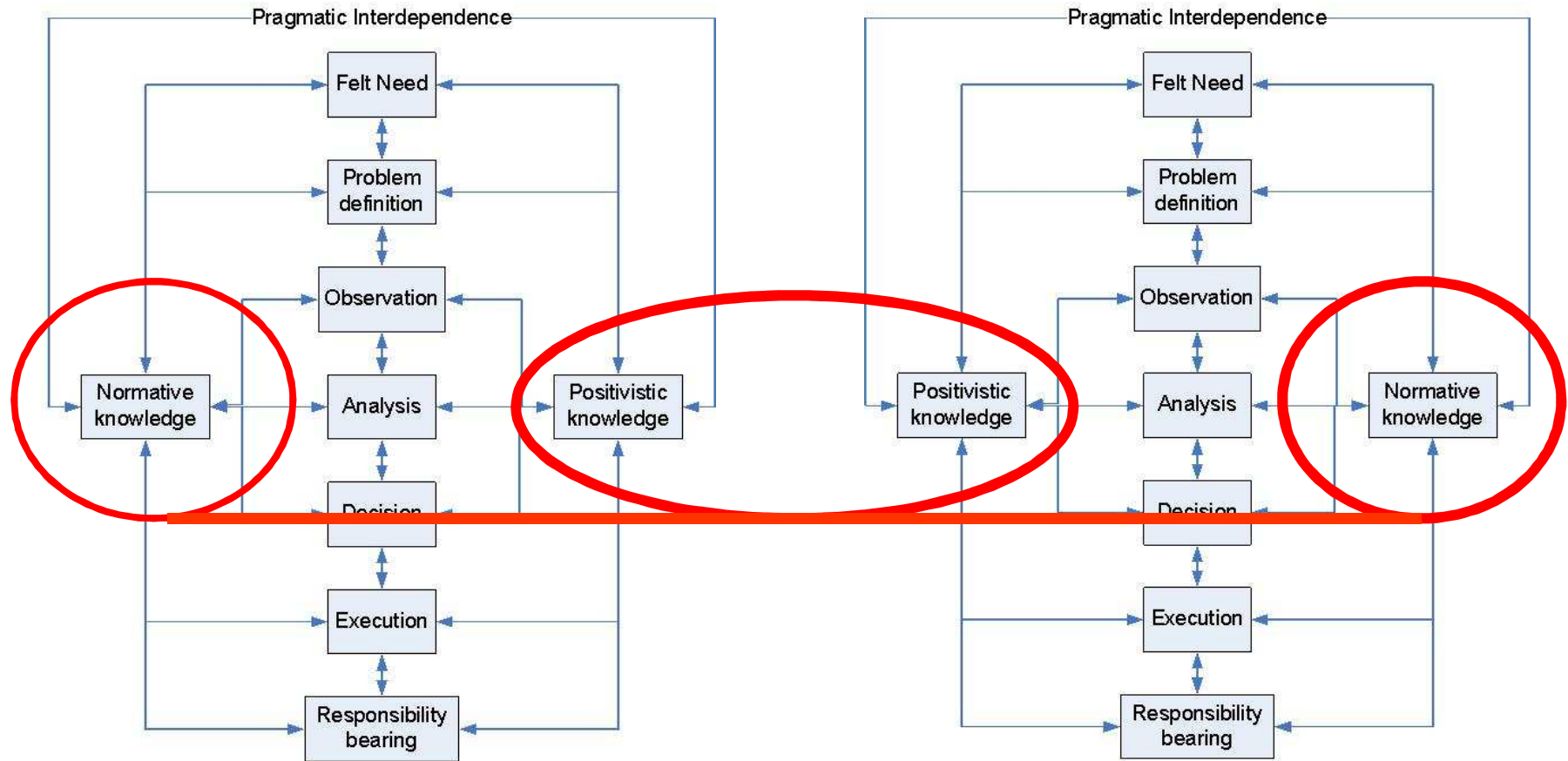
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# AFFILIATION REDUCES TRANSACTION COST



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# AFFILIATION AND TRAINING FURTHER REDUCES TRANSACTION COSTS



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# Financial Conglomerate Structure

Corporate Structure: Holding Company (Federal Reserve Supervision)

Insurance Charter (State Regulation)

Bank or Thrift Charter (OCC or OTS Supervision)

